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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,716	05/09/2001	Fredric Joel Harris	HA-0108	4462

7590

07/13/2006

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EXAMINER

WILLIAMS, LAWRENCE B

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,716

Applicant(s)

HARRIS, FREDRIC JOEL

Examiner

Lawrence B. Williams

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

2. The drawings are objected to because:

a.) The drawing set contains two Fig. 3a, examiner suggests applicant delete one of the figures.

b.) In Fig. 17, examiner suggests applicant replace "Poin" with "Point" for the element labeled "P-42".

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because:

a.) On page 2, line 8, the examiner suggest applicant clarify the phrase "Spectr".

b.) On page 5, line 16, the examiner suggest applicant clarify the expression "exp(j(oTsn)".

c.) On page 6, line 9, the examiner suggest applicant clarify the expression " $2(f_c/f_s)$ "; in line 10, the examiner suggest applicant clarify the expression " $2(M f_c/f_s \text{ modulo}(2))$ "; in lines

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11-12, the examiner suggest applicant clarify the expressions " $k f_s/M$ ", $2(M (k f_s/M)/f_s \text{ modulo}(2))$ ", and " $k 2(\text{modulo}(2))$ ".

Correction is required. See MPEP § 608.01(b).

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claim 9 is objected to because of the following informalities: The examiner suggest applicant delete on of the phrases, "of each" in line 15 of the claim.

Appropriate correction is required.

Allowable Subject Matter

6. Claims 9-10 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a filter and processing sequence for demodulating a 3-G wireless signal. A search of prior art records has failed to teach a receiver comprising: "a resampling polyphase filter for performing tasks of simultaneous spectra translation of multiple contiguous spectral regions to baseband, the steps including:

a.) separating the signals residing in the multiple contiguous spectral regions for bandwidth reduction of each of a varied bandwidth signal component,

b.) performing interpolation to change sample rates of each of a multiple output series by a rational ratio matched to the bandwidth of each signal component, and

a single polyphase filter coupled to operate in a resampling mode such that sample rate inputs and sample rate outputs are different” as disclosed in claim 9. Nor does the prior art teach a receiver comprising; “a filter for;

a.) changing a sample rate to induce spectral aliasing of multiple spectral regions, and

b.) operating in a resampling mode for intentional aliasing of each of several spectral regions and outputting simultaneous separate data streams from varied bandwidth spectral regions at varied output sample rates” as disclosed in claim 10.

Conclusion

8. This application is in condition for allowance except for the following formal matters:

a.) Drawing objections as noted above.

b.) Specification objections as noted above.

c.) Claim objections as noted above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037. The examiner can normally be reached on Monday-Friday (8:00-5:00).

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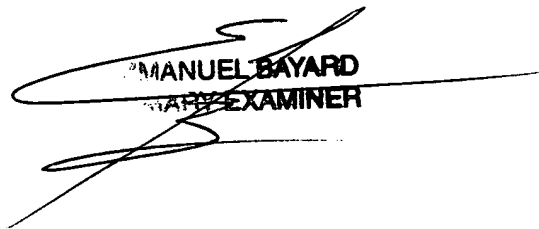
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammad can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw

June 26, 2006


MANUEL BAYARD
PATENT EXAMINER